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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,889	03/30/2004	Miguel M. SALDANA	000099-203	2888
29306	7590	01/27/2005	EXAMINER	
MARSTELLER & ASSOCIATES, P. C. P. O. BOX 803302 DALLAS, TX 75380-3302			STONER, KILEY SHAWN	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/708,889	SALDANA ET AL.	
	Examiner	Art Unit	
	Kiley Stoner	1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 6-10 is/are rejected.
- 7) ☒ Claim(s) 3 and 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3-30-04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 4 and 6-10 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-4 and 6-7 of copending Application No. 10/708,890. Although the conflicting claims are not identical, they are not patentably distinct from each other because it is obvious to one of ordinary skill in the art that a multi-layer ceramic body (MLC) comprises a dielectric insulator. In addition, the claims of the instant application are broader than those of 10/708,890, so the claims of the instant application are envisioned by 10/708,890.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niewold (5,514,928) of the IDS and van der Wilk et al. (5,573,173) of the IDS in view of Tonkovich et al. (US-2004/003455).

Niewold teaches the microchannel plate and the dielectric insulator are deposited with a thin film consisting of a suitable metal selected for optimum diffusion at elevated temperatures and pressure over compatible exterior faces (column 8, line 50-64 and column 9, lines 16-32); and the thin film is gold (claim 4)

Niewold does not teach that the microchannel plate is diffusion bonded to a multi-layer ceramic body.

van der Wilk et al. teaches diffusion bonding a multi-layer ceramic to a conductive element in a vacuum tube (column 2, lines 23-31; column 3, lines 54-60; and column 6, lines 12-22); and the thin film includes a metal selected from the group consisting of gold, silver, and copper (abstract).

Niewold and van der Wilk et al. do not teach diffusion bonding in vacuum heat chamber wherein the components are aligned and placed in a bonding fixture.

Tonkovich et al. teaches diffusion bonding in vacuum heat chamber wherein the components are aligned and placed in a bonding fixture (paragraphs [0219], [0242] and [0244]).

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the fixture and vacuum brazing as taught by Tonkovich et al. with the multi-layered ceramic of van der Wilk et al. and the microchannel plate of Niewold in order to insure that the components are held together during the diffusion bonding process.

Claims 4 and 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niewold (5,514,928) of the IDS in view of van der Wilk et al. (5,573,173) of the IDS.

Niewold teaches diffusion bonding a microchannel plate to a component using a bond material (column 8, line 50-64 and column 9, lines 16-32); the compatible surface of the MCP has a thin metallic film deposited thereon prior to bonding of the MCP and the MLC unit (column 8, line 50-64 and column 9, lines 16-32); the microchannel body assembly is adapted for use in an image intensifier tube (abstract); and the thin film is gold (claim 4).

Niewold does not teach that the microchannel plate is diffusion bonded to a multi-layer ceramic body.

van der Wilk et al. teaches diffusion bonding a multi-layer ceramic to a conductive element in a vacuum tube (column 2, lines 23-31; column 3, lines 54-60; and

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column 6, lines 12-22); and the thin film includes a metal selected from the group consisting of gold, silver, and copper (abstract).

At the time of the invention it would have been obvious to one of ordinary skill in the art to bond the multi-layered ceramic of van der Wilk et al. with the microchannel plate of Niewold by diffusion bonding because both of these components are known to be attached to different components by diffusion bonding as described above.

Allowable Subject Matter

Claims 3 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art of record that is cited as of interest is presented on the form-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiley Stoner whose telephone number is (571) 272-1183. The examiner can normally be reached on Monday-Thursday (7:30 a.m. to 6:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on Monday-Friday at (571) 272-1171. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KILEY S. STONER
PRIMARY EXAMINER

Kiley Stoner 11/25/05